Benchmark: Cut "□" south side of eastern base of 30 mph ramp sign located east of the ramp connecting I-39 NB to US 20 West (Ramp DA) 0.1 mile north of the centerline of Linden Road. Elev. 851.37, 42°-13'-06.37" N, 89°-00'-39.64" W.

Existing Structure: None

Stage Construction will be utilized to maintain one lane of traffic at all times. Stage I Traffic will be maintained on existing Linden Rd.

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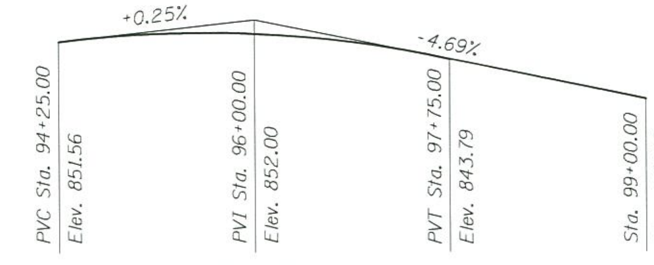
AS A BASIS FOR PREPARATION OF DETAILED PLANS

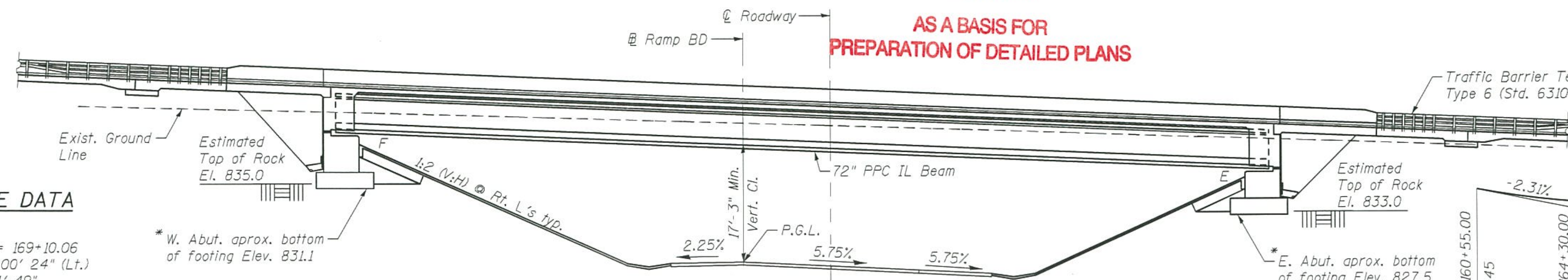
Note: Up to ¼ inch may be ground off the bridge deck and the bridge approach slabs.



PROFILE GRADE

(Along ℄ Linden Rd.)

Note: The profile grade shows the final elevatons after grinding

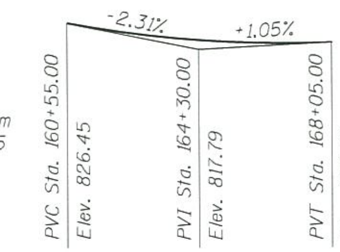


*Embed footing 6" into non-weathered rock.

ELEVATION

CURVE DATA

Ramp BD
P.I. Sta. = 169+10.06
Δ = 107° 00' 24" (Lt.)
D = 2° 14' 49"
R = 2,550.00'
T = 3,446.54'
L = 4,762.42'
E = 1,737.32
SE = 5.75%
P.C. Sta. = 134+63.52
P.T. Sta. = 182+25.95



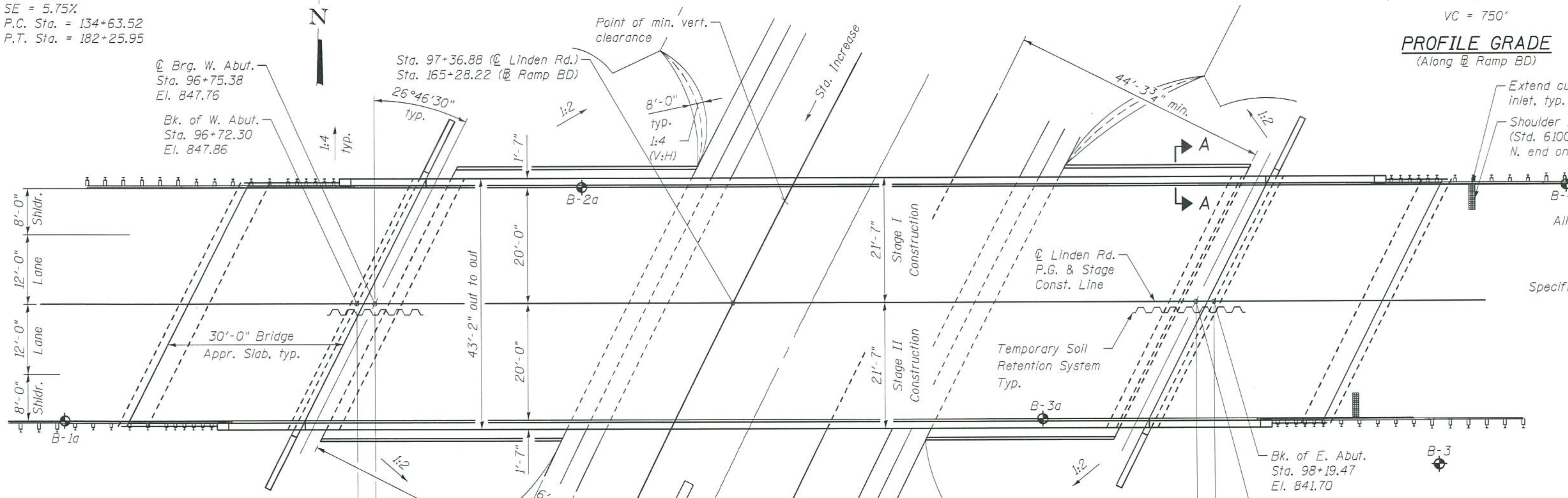
PROFILE GRADE

(Along ℞ Ramp BD)

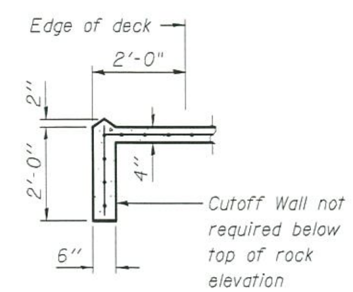
HIGHWAY CLASSIFICATION

F.A.U. Rte. 5118 - Linden Road
Functional Class: Minor Arterial
ADT: 6650 (2013); 18,000 (2040)
ADTT: 330 (2013); 900 (2040)
DHV: 1805 (2040)
Design Speed: 45 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

F.A.I. Rte. 39 - I-39 SB (Ramp BD)
Functional Class: Interstate
ADT: 10,000 (2013); 28,000 (2040)
ADTT: 4200 (2013); 11,700 (2040)
DHV: 2250 (2040)
Design Speed: 70 m.p.h.
Posted Speed: 65 m.p.h.
One-Way Traffic



PLAN



SECTION A-A

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 & 2016 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

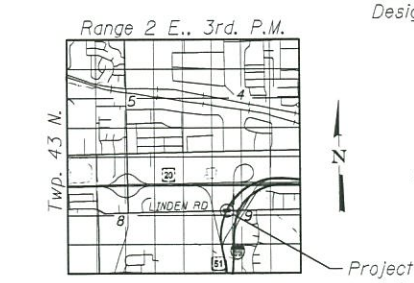
PRECAST PRESTRESSED UNITS

f'c = 8,500 psi
f'ci = 7,000 psi
fpu = 270,000 psi (0.6" ϕ low lax. strands)
fpbt = 202,300 psi (0.6" ϕ low lax. strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.033 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.085 g
Soil Site Class = B

Range 2 E., 3rd. P.M.



LOCATION SKETCH

GENERAL PLAN
LINDEN ROAD OVER I-39 SB (RAMP BD)
F.A.I. RTE. 39 SEC. (201-3)K & (4-1,5)R
WINNEBAGO COUNTY
STATION 97+36.88
STRUCTURE NO. 101-0216

FEHR GRAHAM ENGINEERING & ENVIRONMENTAL ILLINOIS DESIGN FIRM NO. 184-003525	USER NAME = myoung	DESIGNED - CME	REVISED -
		CHECKED - MCB	REVISED -
	PLOT SCALE = 2:4.000001 '/' / in.	DRAWN - CFC	REVISED -
	PLOT DATE = 3/8/2017	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K & (4-1,5)R	WINNEBAGO		
		CONTRACT NO. 64C62		
		ILLINOIS FED. AID PROJECT		

FEHR GRAHAM PROJECT NUMBER: 15-1002 CB PROJ. NO.: 06085

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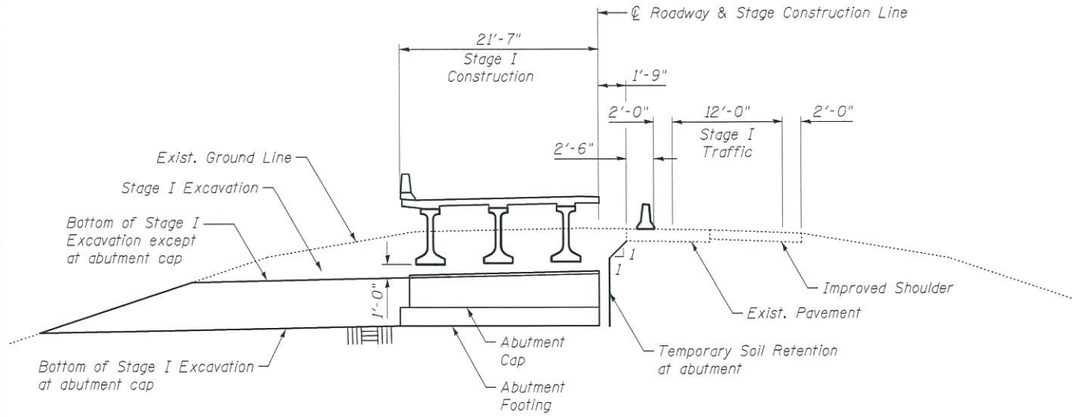
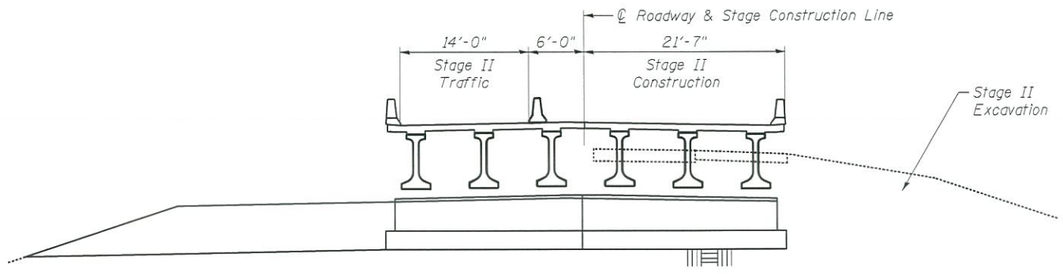
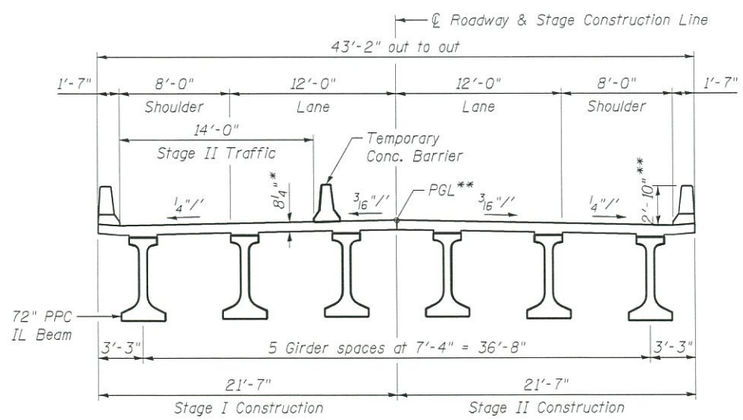


STAGE I CONSTRUCTION



STAGE II CONSTRUCTION



CROSS SECTION

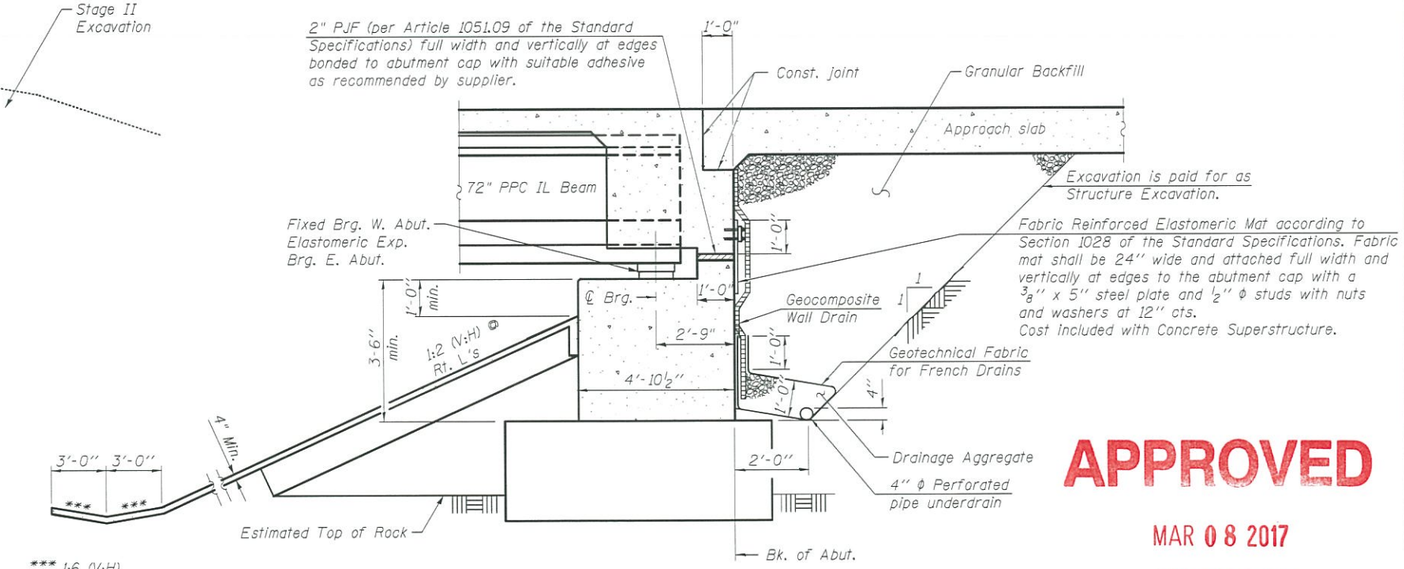
Looking East

* Prior to Grinding
** After Grinding

CONSTRUCTION SEQUENCE

Linden Road over Ramp BD will be constructed using a top-down construction method to maintain one lane of traffic on existing/proposed Linden Road at all times as indicated below.

1. *Direct Linden Road traffic to Stage I Traffic.*
2. *Proceed with Stage I Excavation to 1'-0" below the bottom of the proposed beams across the span using slopes laid back at 1:1 as shown on Stage I Construction Detail.*
3. *Install Temporary Soil Retention System and excavate as required to construct the abutments.*
4. *Proceed with Stage I Construction of abutments, superstructure and approach slabs.*
5. *Direct Linden Road traffic to Stage II Traffic.*
6. *Proceed with Stage II Excavation beneath Stage I Construction and as required for Stage II Construction.*
7. *Proceed with Stage II Construction.*



*** 1:6 (V:H)

SECTION THRU SEMI-INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

Note:
Cast slopewall onto rock and terminate cutoff wall below top of rock elevation.
Embed footing 6" into non-weathered rock.

APPROVED

MAR 08 2017

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DETAILS
LINDEN ROAD OVER I 39 SB (RAMP BD)
F.A.I. RTE. 39 SEC. (201-3)K & (4-1,5)R
WINNEBAGO COUNTY
STATION 97+36.88
STRUCTURE NO. 101-0216

FILE NAME = ...\sn101-0216\sn101-0216-002-tsl.dgn

FEHR GRAHAM ENGINEERING & ENVIRONMENTAL ILLINOIS DESIGN FIRM NO. 184-003525	USER NAME = myoung	DESIGNED - CME	REVISED -
		CHECKED - MCB	REVISED -
	PLOT SCALE = 16:0.000000 '1' / in.	DRAWN - CFC	REVISED -
	PLOT DATE = 3/8/2017	CHECKED - MCB	REVISED -

FEHR GRAHAM PROJECT NUMBER: 15-1002 CB PROJ. NO.: 06085

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 2 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K & (4-1,5)R	WINNEBAGO		
		CONTRACT NO. 64C62		
	ILLINOIS FED. AID PROJECT			